

- LABOPIDEA ALLII Knight. On sugar-beets at Hyde Park, August 2, 1929 (Knowlton).  
L. CHLORIZA Uhl. Brigham, July 21, 1907 (Titus).  
L. VIRIDULA Knight. Fort Duchesne, June 15, 1932 (Stoffers).  
GERHARDIELLA RUBIDA Popp. Fort Duchesne, July 18, 1932 (Stoffers).  
PLAGIOGNATHUS MOERENS Reut. Sevier, June 27, 1927 (Knowlton).

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**On the Hesperiidæ Described by  
Mr. A. G. Weeks, Jr. (Lepidoptera)**

By E. L. BELL, Flushing, New York.

Through the courtesy and co-operation of Mr. D. Marston Bates, of the Museum of Comparative Zoology, Harvard University, Cambridge, Mass., the writer has had the privilege of examining the type of the various species of *Hesperiidæ* described by Mr. A. G. Weeks, Jr., now in that Museum.

Mr. Weeks, in the majority of his descriptions, did not attempt to place his species definitely in their respective genera but merely used a blanket generic term for certain groups and thus placed together insects which in some cases are not closely related, and as the details of superficial sexual characters are generally omitted from the descriptions it has been impossible accurately to place many of the species in their proper genera. Some of the species are represented only by females and these cannot always be properly placed without knowing what the male is like, and they are here placed as nearly as possible in their correct genera as the lack of knowledge of the male permits.

The specimens from which the original drawings were made bear a label to that effect and in most of his species Mr. Weeks has attached to one of the specimens a label reading "Type" but in a few cases this label has been omitted.

A considerable number of the insects described by Mr. Weeks have been omitted from Volume V of Seitz's *Macrolepidoptera of the World*.

var. ALEXANDERI Weeks, THYMELE PERVIVAX. 1906, *Psyche*, xiii, p. 71. 1911, *Ill. Diurn. Lep.*, ii, p. 15, pl. ix. Suapure, Venezuela. Genus *Chrysoplectrum*. A synonym of *bahiana* Herrich-Schaffer. The type is a male.

ALLENI Weeks, PAMPHILA. 1901, Proc. New Eng. Zool. Club, ii, p. 85, 1905, Ill. Diurn. Lep., i, p. 71, pl. xxvii, fig. 1. La Paz, Bolivia. Genus *Dalla*. The type is a male.

ALLIANCA Weeks, PAMPHILA. 1901, Proc. New Eng. Zool. Club, ii, p. 93, 1905, Ill. Diurn. Lep., i, p. 83, pl. xxxiii, fig. 1. Bolivia. Genus probably *Cobalus*. The type is a female.

AMBROSEI Weeks, CARYSTUS. 1906, Psyche, xiii, p. 67, 1911, Ill. Diurn. Lep., ii, p. 18, pl. xi, fig. 2. Suapure, Venezuela. Genus *Metroclcs*. Allied to *leucogaster* Godman. The type is a female.

ARGENTEA Weeks, PAMPHILA. 1901, Can. Ent., xxxiii, p. 296, 1905, Ill. Diurn. Lep., i, p. 53, pl. xv, fig. 2. Cusilluni district, Bolivia. Genus probably *Mucia*. The stigma of the male type is similar though not exactly the same as found in the genus *Mucia*.

ARTIEI Weeks, PAMPHILA. 1901, Proc. New Eng. Zool. Club, ii, p. 91, 1905, Ill. Diurn. Lep., i, p. 79, pl. xxx, fig. 2. Coroico, Bolivia. Genus *Lerema*. A synonym of *idcc* Weeks. The type is a male and lacks the abdomen but there are two paratypes.

BARBARA Weeks, PAMPHILA. 1902, Can. Ent., xxxiv, p. 138, 1905, Ill. Diurn. Lep., i, p. 75, pl. xxviii, fig. 3. Bolivia. Genus *Artines*. Closely related to, if not a synonym of, *acpitus* Geyer. The type is a female.

BENCHOS Weeks, CARYSTUS. 1909, Ent. News, xx, p. 263, 1911, Ill. Diurn. Lep., ii, p. 28, pl. xx. 200 miles north of Cochabamba, Bolivia. Genus *Carystoides*. The type is a female.

BOBAE Weeks, PAMPHILA. 1906, Ent. News, xvii, p. 203, 1911, Ill. Diurn. Lep., ii, p. 11, pl. vii, fig. 1. Suapure, Venezuela. Genus *Pellicia*. The type is a male and has the characteristic hair-tuft from the basal costal area of the upper side of the secondaries.

BRIDGMANI Weeks, THYMELE. 1902, Proc. New England Zool. Club, iii, p. 6, 1905, Ill. Diurn. Lep., i, p. 89, pl. xxxviii, fig. 1, Bolivia. Genus *Goniurus*. Allied to *ridens* Hewitson, with which the form of the genitalia shows considerable similarity. The type is a male.

BRIQUENYDAN Weeks, PAMPHILA. 1901, Proc. New Eng. Zool. Club, ii, p. 87, 1905, Ill. Diurn. Lep., i, p. 82, pl. xxxii, fig. 1. La Paz, Bolivia. Genus probably *Atrytone*. The type is a female.

BROOKSII Weeks, PAMPHILA. 1906, Ent. News, xvii, p. 204, 1911, Ill. Diurn. Lep., ii, p. 11, pl. vii, fig. 2. Suapure, Venezuela. Genus *Orphe*. The peculiar stigma of the male type, seamed with longitudinal lines giving it an undulate appearance,

allies *brooksii* with *Orphe vatinius* Godman, which has a stigma of similar construction, according to the description.

BRYANTI Weeks, PAMPHILA. 1906, Can. Ent., xxxviii, p. 175. 1911, Ill. Diurn. Lep., ii, p. 27, pl. xviii, fig. 2. Suapure, Venezuela. Genus *Eutyche*. The male type and two male paratypes have the typical stigma of this genus. Although the three specimens are undoubtedly con-specific no two of them are exactly alike in the extent of their maculation; one has two spots in the cell of the primaries, one has a single spot and the other one has none. The one with the two spots is apparently the one which Mr. Weeks has figured.

BUFFUMI Weeks, AETHILLA. 1906, Can. Ent., xxxviii, p. 174. 1911, Ill. Diurn. Lep., ii, p. 26, pl. xviii, fig. 1. Suapure, Venezuela. Genus *Telemiades*. A synonym of *amphion* Geyer. The type is a female.

CALIFORNICA Weeks, PRENES. 1902, Proc. New Eng. Zool. Club, iii, p. 11. 1905, Ill. Diurn. Lep., i, p. 63, pl. xxii, fig. 2. Lower California. Genus probably *Prenes*. Type is a male.

CHINGACHOOK Weeks, ATRYTONE. 1909, Ent. News, xx, p. 264. 1911, Ill. Diurn. Lep., ii, p. 30, pl. xxi, fig. 2. Suapure, Venezuela. Genus probably *Atrytone*. The type is a female.

CHINOBA Weeks, PAMPHILA. 1906, Can. Ent., xxxviii, p. 175. 1911, Ill. Diurn. Lep., ii, p. 25, pl. xvii, fig. 2. Suapure, Venezuela. Genus *Zopyrion*. A synonym of *satyrina* Felder, which Mr. Weeks has noted by placing a box label bearing that name under his label *chinoba*. The type series consists of twelve specimens, with no specific type marked; but the figured specimen, which Mr. Weeks usually called the type, is a male.

COROICANA Weeks, PAMPHILA. 1901, Proc. New Eng. Zool. Club, ii, p. 79. 1905, Ill. Diurn. Lep., i, p. 56, pl. xvi, fig. 2. Near Coroico, Bolivia. Genus *Lerodea* (*Megistias auct.*). The abdomen of the type is missing so the sex is uncertain.

COROICONENSIS Weeks, PAMPHILA. 1901, Proc. New Eng. Zool. Club, ii, p. 92. 1905, Ill. Diurn. Lep., i, p. 84, pl. xxxiii, fig. 2. Coroico, Bolivia. Genus *Metiscus*. A synonym of *atheas* Godman. The type is a male.

CUADRADA Weeks, PAMPHILA. 1901, Trans. Amer. Ent. Soc., xxvii, p. 359. 1905, Ill. Diurn. Lep., i, p. 78, pl. xxix, fig. 3. Near Coroico, Bolivia. Genus *Dalla*. The type lacks the abdomen so the sex is uncertain, but there is a male paratype.

CUSILLUNIA Weeks, PAMPHILA. 1901, Ent. News, xii, p. 267. 1905, Ill. Diurn. Lep., i, p. 54, pl. xv, fig. 3. Near Cusilluni, Bolivia. Genus *Perimcles*. A synonym of *remus* Fabricius. The type is a male.

**DIFFICILIS** Weeks, **GORGYTHION**. 1901, Proc. New England Zool. Club, ii, p. 82. 1905, Ill. Diurn. Lep., i, p. 50, pl. xiv, fig. 2. Near Cochabamba, Bolivia. Genus *Quadrus*. The type is a male.

**DUOVATA** Weeks, **BUTLERIA**. 1901, Proc. New England Zool. Club, ii, p. 89. 1905, Ill. Diurn. Lep., i, p. 66, pl. xxiv, fig. 2. Near Coroico, Bolivia. Genus *Dalla*. A synonym of *diraspes* Hewitson. The type lacks the abdomen and antennae so the sex is uncertain.

**DUSPECCA** Weeks, **COBALOPSIS**. 1902, Ent. News, xiii, p. 105. 1905, Ill. Diurn. Lep., i, p. 71, pl. xxvi, fig. 2. Coroico, Bolivia. Genus *Cobalus*. A synonym of *cannac* Herrich-Schaffer. The type is a male.

**ELIDES** Weeks, **CALLIMORMUS**. 1909, Ent. News, xx, p. 263. 1911, Ill. Diurn. Lep., ii, p. 29, pl. xxi, fig. 1. Suapure, Venezuela. Genus *Lerodea* (*Megistias auct.*). Synonym of *telata* Herrich-Schaffer. The type is a female.

**ERRATOR** Weeks, **PAMPHILA**. 1901, Proc. New Eng. Zool. Club, ii, p. 73. 1905, Ill. Diurn. Lep., i, p. 53, pl. xv, fig. 1. Coroico district, Bolivia. Genus *Lerodea*. The type is a female, but there are two male paratypes.

**FERA** Weeks, **ARCHLYODES**. 1901, Proc. New England Zool. Club, ii, p. 107. 1905, Ill. Diurn. Lep., i, p. 67, pl. xxiv, fig. 3. Bolivia. The examination of the female type was not conclusive as to the generic alliance.

**FINITIMUS** Weeks, **TILEGONUS**. 1901, Proc. New England Zool. Club, ii, p. 104. 1905, Ill. Diurn. Lep., i, p. 90, pl. xxxviii, fig. 2. Bolivia. Genus *Perichares*. The type is a male.

**GUILFORDI** Weeks, **ACHLYODES**. 1901, Proc. New England Zool. Club, ii, p. 106. 1905, Ill. Diurn. Lep., i, p. 94, pl. xli, fig. 1. Coroico, Bolivia. Genus *Pellicia*. A synonym of *costimacula* Herrich-Schaffer. The type is a male.

**HIRTA** Weeks, **PYTHONIDES**. 1901, Can. Ent., xxxiii, p. 321. 1905, Ill. Diurn. Lep., i, p. 104, pl. xlv, fig. 2. Bogota district, Colombia. Genus *Potamanaxas*. Possibly a synonym of *paralus* Godman & Salvin. The type lacks the abdomen so the sex is uncertain.

**HOYTI** Weeks, **PYTHONIDES**. 1906, Ent. News, xvii, p. 202. 1911, Ill. Diurn. Lep., ii, p. 10, pl. vi, fig. 2. Suapure, Venezuela. Genus *Telemiades*. The type appears to be a female.

**HURLEYI** Weeks, **PAMPHILA**. 1901, Proc. New Eng. Zool. Club, ii, p. 97. 1905, Ill. Diurn. Lep., i, p. 72, pl. xxvii, fig. 2. Bolivia. Genus *Dalla*. A synonym of *ibhara* Butler. The type is a male.

**IDEE** Weeks, **PAMPHILA**. 1901, Proc. New Eng. Zool. Club, ii, p. 86. 1905, Ill. Diurn. Lep., i, p. 79, pl. xxx, fig. 1. La Paz, Bolivia. Genus *Lerema*. The type is a male.

KIKKAWAI Weeks, PLESTIA. 1906, Can. Ent., xxxviii, p. 177. 1911, Ill. Diurn. Lep., ii, p. 9, pl. vi, fig. 1. Suapure, Venezuela. Genus *Hydraenomia*. Allied to, and probably a synonym of, *orcinus* Felder. The type is a male.

LEOPARDUS Weeks, PAMPHILA. 1901, Proc. New Eng. Zool. Club, ii, p. 96. 1905, Ill. Diurn. Lep., i, p. 73, pl. xxviii, fig. 1. Bolivia. Genus *Eutocus*. A synonym of *lucia* Capronnier. The type is a female.

MELCHERI Weeks, ACHLYODES. 1906, Can. Ent., xxxviii, p. 176. 1911, Ill. Diurn. Lep., ii, p. 27, pl. xix. Suapure, Venezuela. Genus *Pellicia*. Lindsey placed *melcheri* as a synonym of *licisca* Plotz and a superficial comparison of a specimen of *licisca* with the type of *melcheri* seems to confirm this synonymy. The type is a male.

MENGELI Weeks, PAMPHILA. 1906, Psyche, xiii, p. 68. 1911, Ill. Diurn. Lep., ii, p. 17, pl. xi, fig. 1. Suapure, Venezuela. Genus *Chaerephon*. A synonym of *vesana* Weeks, as stated below, being merely a somewhat paler form with the veins on the underside of the secondaries more prominently pale. The type is a male.

MENUDA Weeks, NISONIADES. 1902, Proc. New England Zool. Club, iii, p. 4. 1905, Ill. Diurn. Lep., i, p. 101, pl. xlv, fig. 2. Bolivia. Genus *Pholisora* (*Staphylus* auct.). The type is a male and has a costal fold.

MILESI Weeks, PAMPHILA. 1901, Proc. New Eng. Zool. Club, ii, p. 88. 1905, Ill. Diurn. Lep., i, p. 81, pl. xxxi, fig. 2. Coroico district, Bolivia. Lindsey placed this species in *Tirynthia*, but whether it belongs here or in *Cobalus* is uncertain as the type is a female.

NAKAWARA Weeks, ERYCIDES. 1906, Psyche, xiii, p. 70. 1911, Ill. Diurn. Lep., ii, p. 20, pl. xiii. Suapure, Venezuela. Genus *Phocides*. A synonym of *distans* Herrich-Schaffer. The type is a female.

NIGELLA Weeks, SYRICHTHUS. 1902, ENT. NEWS, xiii, p. 107. 1905, Ill. Diurn. Lep., i, p. 76, pl. xxix, fig. 1. Sicasica, Bolivia. Genus *Pyrgus*. Related to *biseriatus* Weymer but with more spots on the upper side of the secondaries. The type is a female but there is a male specimen in the series of three. The male has no costal fold but has a tibial tuft. The very long white fringes of the female are not well shown in the figure given by Weeks.

PARKERI Weeks, THANAOS. 1906, Psyche, xiii, p. 72. 1911, Ill. Diurn. Lep., ii, p. 19, pl. xii, fig. 2. Suapure, Venezuela. Genus *Erynnis* (*Thanaos* auct.). *Parkeri* has considerable similarity with *heteropterus* Plotz and may be a synonym of that species, but certain differences in maculation and the more pointed primaries of *parkeri* render it necessary to compare

the form of the genitalia in order to determine their exact relationship. The type is a male.

*PELAGICA* Weeks, *PYRGUS*. 1891, *Can. Ent.*, xxiii, p. 126. 1905, *Ill. Diurn. Lep.*, i, p. 4, pl. 1, fig. 5. Near San Jose del Cabo, Lower California. Genus *Chiomara*. A synonym of *asychis* Cramer. The type is a male.

*PLANUS* Weeks, *PAMPHILA*. 1901, *Proc. New Eng. Zool. Club*, ii, p. 95. 1905, *Ill. Diurn. Lep.*, i, p. 80, pl. xxxi, fig. 1. Bolivia. Genus *Methionopsis*. The stigma of the male type is the same as that of *ina* Plotz but rather more heavily developed. The type is a very large individual and has the pale anal angle area of the underside of the primaries not so prominently shown as in *ina*.

*PLUMMERTINI* Weeks, *NISONIADES*. 1906, *Psyche*, xiii, p. 73. 1911, *Ill. Diurn. Lep.*, ii, p. 18, pl. xii, fig. 1. Suapure, Venezuela. Genus *Pholisora* (*Staphylus auct.*). A synonym of *mazans* Reakirt. The type is a male.

*REEDI* Weeks, *PAMPHILA*. 1901, *Proc. New Eng. Zool. Club*, ii, p. 86. 1905, *Ill. Diurn. Lep.*, i, p. 70, pl. xxxvi, fig. 1. Coroico district, Bolivia. Genus *Dalla*. The type is a male.

*REEDI* Weeks, *PYRRHOPYGOPSIS*. 1901, *Can. Ent.*, xxxiii, p. 295. 1905, *Ill. Diurn. Lep.*, i, p. 57, pl. xvii. Five days north of Cochabamba, Bolivia. Genus *Pyrrhopygopsis*. A synonym of *quispica* Plotz, as has been noted by previous authors. The type is a male.

*RICHARDI* Weeks, *CARYSTUS*. 1906, *ENT. NEWS*, xvii, p. 199. 1911, *Ill. Diurn. Lep.*, ii, p. 7, pl. iv, fig. 3. Suapure Venezuela. Genus *Vettius*. A synonym of *lafrenaye* Latreille. The type is a female.

*SEATONI* Weeks, *ACHLYODES*. 1901, *Proc. New England Zool. Club*, ii, p. 108. 1905, *Ill. Diurn. Lep.*, i, p. 95, pl. xli, fig. 2. 200 miles north of Cochabamba, Bolivia. Genus *Quadrus*. A synonym of *narycus* Mabilbe. The type is a male.

*SEPTIMANUS* Weeks, *PAMPHILA*. 1901, *Proc. New Eng. Zool. Club*, ii, p. 104. 1905, *Ill. Diurn. Lep.*, i, p. 83, pl. xxxii, fig. 2. Chulumani, Bolivia. Genus probably *Cobalus*. The type is a female.

*SERENUS* Weeks, *PAMPHILA*. 1901, *Proc. New Eng. Zool. Club*, ii, p. 93. 1905, *Ill. Diurn. Lep.*, i, p. 56, pl. xvi, fig. 3. Near Coroico, Bolivia. Genus *Lerodca* (*Megistias auct.*). The type lacks the abdomen so the sex is uncertain, but there is another male paratype, and two other specimens, a male and a female, in the series which may not be conspecific with the type and paratype.

*TABERI* Weeks, *PAMPHILA*. 1901, *Proc. New Eng. Zool. Club*, ii, p. 95. 1905, *Ill. Diurn. Lep.*, i, p. 74, pl. xxviii, fig. 2.



Cochabamba, Bolivia. Genus probably *Cobalus*. There is no apparent stigma on the primaries of the type, but the superficial examination was not conclusive as to the sex.

TIHONETA Weeks, NICONIADES. 1901, Can. Ent., xxxiii, p. 323. 1905, Ill. Diurn. Lep., i, p. 62, pl. xxii, fig. 1. Near La Paz, Bolivia. Genus *Thespius*. The type is a male.

TRITONAE Weeks, TELEGONUS. 1901, Proc. New England Zool. Club, ii, p. 105. 1905, Ill. Diurn. Lep., i, p. 85, pl. xxxiv. Near Chulumani, Bolivia. Genus *Celaenorrhinus*. The type and two paratypes are females.

VERDANTA Weeks, PAMPHILA. 1906, Psyche, xiii, p. 67. 1911, Ill. Diurn. Lep., ii, p. 16, pl. x, fig. 2. Suapure, Venezuela. Genus *Metrocles*. Probably a synonym of *oropa* Hewitson. The type is a male.

VESANA Weeks, PAMPHILA. 1901, Proc. New Eng. Zool. Club, ii, p. 80. 1905, Ill. Diurn. Lep., i, p. 55, pl. xvi, fig. 1. Yacanachi district Bolivia. Genus *Chacrephon*. *Mengeli* Weeks and *lindseyi* Bell are both synonyms of *vesana* Weeks. The type is a male.

VIRIDENEX Weeks, PAMPHILA. 1901, Proc. New Eng. Zool. Club, ii, p. 80. 1905, Ill. Diurn. Lep., i, p. 52, pl. xiv, fig. 3. Five days north of Cochabamba, Bolivia. Genus probably *Atrytone*. The type is a male.

WARRENI Weeks, PAMPHILA. 1901, Proc. New Eng. Zool. Club, ii, p. 93. 1905, Ill. Diurn. Lep., i, p. 77, pl. xxix, fig. 2. Coroico, Bolivia. Genus *Amblyscirtes*. The type is a female and there is one male paratype.

WINSLOWI Weeks, PAMPHILA. 1906, Psyche, xiii, p. 69. 1911, Ill. Diurn. Lep., ii, p. 15, pl. x, fig. 1. Suapure, Venezuela. Genus *Catia*. A synonym of *otho* race *curassavica* Snellen, which represents the race of *otho* Abbot & Smith from Curacao, Trinidad, Panama and parts of South America. This race is distinguished by the more extended and paler yellowish maculation of the upper side, the paler yellow color of the under side, and the rather distinct yellow stripe in the cell of the upper side of the secondaries. The type is a male.

### Stridulating Organs of Female Tettigoniidae (Orthoptera).

By B. B. FULTON, N. C. State College, Raleigh, North Carolina.

The literature on the Orthoptera contains a number of records in which an observer claims to have heard calls by the female of some species of Tettigoniidae. Riley, describing the song of *Scudderia furcata*, says "the call is occasionally re-